

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of polishing, comprising:
holding a substrate on a substrate mounting surface that is vertically movable relative to a rigid base of a carrier head in a chemical mechanical polishing apparatus;
bringing the substrate into contact with a polishing surface;
creating relative motion between the polishing surface and the substrate; and
maintaining the substrate beneath the substrate mounting surface with a retaining ring that includes a generally annular lower portion having a bottom surface for contacting the polishing surface during polishing, and a generally annular upper portion having a bottom surface joined to the lower portion and a top surface fixed to and abutting the base such that the retaining ring is vertically fixed relative to the base, wherein the lower portion is made of a plastic and the upper portion is made of a metal which is more rigid than the plastic, and wherein the lower portion lacks any aperture from the top surface to the bottom surface of the lower portion.
2. (Original) The method of claim 1, further comprising dispensing a slurry onto the polishing surface.
3. (Original) The method of claim 1, further comprising applying a load from the mounting surface to press the substrate against the polishing surface.
4. (Previously presented) The method of claim 3, wherein applying a load includes pressurizing a chamber in the carrier head between the substrate mounting surface and the base.

5. (Original) The method of claim 1, wherein creating relative motion includes rotating the polishing surface.

6. (Original) The method of claim 1, wherein creating relative motion includes rotating the carrier head.

7. (Original) The method of claim 1, wherein the plastic is substantially inert to a chemical mechanical polishing process.

8. (Original) The method of claim 1, wherein the lower portion is thicker than the substrate.

9. (Currently Amended) The method of claim 8, wherein the lower portion is between about 100 and 400 mils thick and has a durometer measurement between about 80 and 95 on the Shore D scale.

10. (Original) The method of claim 1, wherein the plastic is selected from the group consisting of polyphenylene sulfide, polyethylene terephthalate, polyetheretherketone, and polybutylene terephthalate.

11. (Original) The method of claim 10, wherein the plastic is polyphenylene sulfide.

12. (Original) The method of claim 1, wherein the metal is selected from the group consisting of steel, aluminum, and molybdenum.

13. (Original) The method of claim 1, wherein the plastic has an elastic modulus about ten to one-hundred times the elastic modulus of the metal.

14. (Original) The method of claim 1, wherein the lower portion is adhesively attached to the upper portion.

15. (Cancelled)

16. (Original) The method of claim 1, wherein the lower portion is press fit to the upper portion.

17. (Currently Amended) A method of assembling a retaining ring, comprising:
securing a generally annular lower portion made of a plastic and having a bottom surface for contacting a polishing pad during polishing to a bottom surface of a generally annular upper portion made of a metal which is more rigid than the plastic and having a top surface configured to be mechanically affixed to and abut a rigid base of a carrier head, wherein the lower portion is joined to the upper portion and the top surface is configured such that the retaining ring is removable as a unit from the base so that the upper portion remains secured to the lower portion while the retaining ring is removed, wherein the lower portion is secured to the upper portion before the upper portion is secured to the carrier head.

18. (Previously presented) The method of claim 17, wherein securing the lower portion to the upper portion includes adhesively attaching the lower portion to the upper portion.

19. (Previously presented) The method of claim 18, wherein adhesively attaching the lower portion to the upper portion includes adhesively attaching with an epoxy.

20. (Previously presented) The method of claim 17, wherein securing the lower portion to the upper portion includes screwing the lower portion to the upper portion.

21. (Original) The method of claim 17, wherein securing the lower portion to the upper portion includes press fitting the lower portion to the upper portion.

22. (Original) The method of claim 17, wherein the plastic is substantially inert to a chemical mechanical polishing process.

23. (Original) The method of claim 17, wherein the lower portion is thicker than a substrate to be polished.

24. (Currently Amended) The method of claim 23, wherein the lower portion is between about 100 and 400 mils thick and has a durometer measurement between about 80 and 95 on the Shore D scale.

25. (Original) The method of claim 17, wherein the plastic is selected from the group consisting of polyphenylene sulfide, polyethylene terephthalate, polyetheretherketone, and polybutylene terephthalate.

26. (Original) The method of claim 25, wherein the plastic is polyphenylene sulfide.

27. (Original) The method of claim 17, wherein the metal is selected from the group consisting of steel, aluminum, and molybdenum.

28. (Original) The method of claim 17, wherein the plastic has an elastic modulus about ten to one-hundred times the elastic modulus of the metal.

29. (Currently Amended) A method of assembling a carrier head, comprising:
securing a top surface of an upper portion of a retaining ring to be affixed to and abut a rigid base of the carrier head such that the retaining ring is vertically fixed relative to the base, wherein the retaining ring includes a generally annular lower portion made of a plastic and having a bottom surface for contacting a polishing pad during polishing, and wherein the upper portion is made of a metal which is more rigid than the plastic and includes a bottom surface joined to the lower portion, and wherein the lower portion is joined to the upper portion and the retaining ring is secured to the base such that the retaining ring is removable as a unit from the base so that the upper portion remains secured to the lower portion while the retaining ring is removed , wherein the lower portion is secured to the upper portion before the upper portion is secured to the carrier head.

30. (Original) The method of claim 29, further comprising securing a substrate backing assembly to the rigid base so that a substrate receiving surface of the substrate backing assembly is vertically movable relative to the rigid base.

31. (Original) The method of claim 29, wherein securing the substrate backing assembly to the rigid base includes clamping a flexure in the substrate backing assembly between the rigid base and the retaining ring.

32. (Previously presented) The method of claim 1, wherein the bottom surface of the lower portion is substantially flat.

33. (Previously presented) The method of claim 1, further comprising transporting slurry through channels in the bottom surface of the lower portion.

34. (Currently Amended) The method of claim 1, wherein the lower portion is joined to the upper portion and the retaining ring is secured to the base such that the retaining ring is removable as a unit from the base so that the upper portion remains secured to the lower portion while the retaining ring is removed.

35. (Currently Amended) The method of claim 34, wherein the carrier head is configured such that the retaining ring is removable without disassembly of the ~~carrier head~~ base.

36. (Currently Amended) The method of claim 29, wherein the carrier head is configured such that the retaining ring is removable without disassembly of the ~~carrier head~~ base.

37. (Previously presented) The method of claim 17, wherein the lower portion lacks any aperture from the top surface to the bottom surface of the lower portion.

38. (Previously presented) The method of claim 29, wherein the lower portion lacks any aperture from the top surface to the bottom surface of the lower portion.

39. (Currently Amended) A method of assembling a retaining ring, comprising:
securing a generally annular lower portion made of a plastic and having a bottom surface for contacting a polishing pad during polishing with an adhesive to a bottom surface of a generally annular upper portion made of a metal which is more rigid than the plastic and having a top surface configured to be mechanically affixed to and abut a rigid base of a carrier head, wherein the lower portion lacks any aperture from the top surface to the bottom surface of the

lower portion, wherein the lower portion is secured to the upper portion before the upper portion is secured to the carrier head.

40. (New) The method of claim 39, wherein the lower portion is between about 100 and 400 mils thick and has a durometer measurement between about 80 and 95 on the Shore D scale.

41. (New) The method of claim 39, wherein the top surface of the upper portion includes a hole extending partially but not entirely through the upper portion to receive a fastener to mechanically affix the retaining ring to the base.

42. (New) The method of claim 17, wherein the top surface of the upper portion includes a hole extending partially but not entirely through the upper portion to receive a fastener to mechanically affix the retaining ring to the base.